Silicone E

Technical Data		
Mixing ratio	100 : 5	(by weight)
Processing time	app. 150 min.	(23°C, to 60.000 mPa.s)
Mischungsviskosität	app. 7000 mPa.s	(23°C, after Brookfield)
Density	1,23 g/cm³	(23°C; reaction product)
Hardness Shore A	app. 45	(23°C)
Resistance to temperature	-45°C to +180°C	(after hardening)

Material description

Silicon E is a pourable, condensation-curing two- component silicone rubber vulcanising at room temperature. It has a excelent flowability with good self-deaeration and a medium Shore A hardness after curing. The cured rubber Silicon E has good dielectric properties.

Application

Encapsulation of electrical and electronic components. Also suitable for making flexible moulds or as flexible mould release agent.

Processing

Before the rubber base is taken from the drum or mixed with the catalyst, it must be stirred thoroughly, preferably using a mechanical stirrer, in order to redisperse any filler which may have settled.

For processing Silicon E the hardener must be filled in the rubber base and both components must be mixed with constant stirring.

The mixture should be poured in a thin stream from close as possible. The point of contact should not be varied once selected. The silicone rubber will thus fill all voids and expel air. The resultant vulcanisates are bubble-free.

Condensation-curing silicone rubbers requires catalytical amounts of humidity for proper cure. If the containers are not stored tightly closed, or are even left open, the water added during the production may evaporate, resulting in markedly prolonged pot lifes as well as curing problems, such as adherence of rubber to the surface.

In this case, the water content of the air must be increased by appropriate measures, e.g. evaporators or atomisers, to at least 40% relative humidity. Water should not be added to the rubber base.

As encapsulating material Silicon E is a condensation-curing silicone rubber, it will achieve its full operability only after the volatile reaction products (low-molecolar alcohols) formed during vulcanisation have been removed.

The potted components must not be exposed to temperatures exceeding 90°C until the alcohol formed during cure has fully escaped from the vulcanisate.

Vulcanisates that are absolutely free from alcohol are obtained by storing them exposed to the air for a period of, depending on layer thickness, 48 - 72 hours at ambient temperature or by heating them in awell ventilated oven at 70°C maximum for approx. 6 hours/cm layer thickness.

Storage

The original closed tins have to be stored in a dry and frost-free place. Open units must be used at once.

The processing-guarantee is 12 months after production date (see labels on the containers).

Hazardous / Safety advice

Follow the advice printed on the containers and the relevant safety data sheets for resin and hardener.